

Municipal 3Rs in Ontario: 1998

Fact Sheet

INTRODUCTION

Ontarians have again increased the amount they reduce, reuse and recycle! Municipalities in 1998 increased tonnage diverted from disposal by 9 per cent compared to 1997 (1.25 million tonnes, up from 1.15 million). This is just the waste diversion resulting from municipal efforts. Private sector waste service companies also divert an additional 800,000 tonnes (approximate) of industrial, commercial and institutional wastes (IC&I), wastes which comprise half of the total waste stream.¹ This fact sheet focuses solely on the results of municipal sector 3Rs activity.

The information in this fact sheet was obtained through a 1999 survey of Ontario municipalities with respect to their 1998 operations. Results are summarized in the table below, and individual topics are elaborated upon in the following pages.

Highlights:

- Residential recycling tonnage (curbside and depot), accounting for a little over half of the total 3Rs tonnage, is up by 9 per cent.
- Residential paper recovered increased to 476,000 tonnes, up 11 per cent from 1997.
- The average household recycled 168 kilograms, up 6 per cent from 159 kilograms in 1997.
- Households served by municipal 3Rs programs are up 3 per cent.
- Centralized composting tonnage, mainly leaf and yard waste, is up by 4 per cent.

Highlights of Municipal 3Rs Results (data in 000's)

Year	1994	1996	1997	1998	97 to 98 % change
Provincial population	10,800	11,100	11,300	11,400	1
Provincial households	3,973	4,053	4,119	4,238	3
Provincial 3Rs tonnage: all activities	864	1,030	1,147	1,255	9
Residential recycling: tonnes	454	532	595	648	9
Households with curb and/or depot access to recycling	3,145	3,484	3,730	3,850	3
Municipally collected IC&I recyclables: tonnes	25	30	17	21	24
Other residential recyclables: e.g., whitegoods: tonnes	86	100	79	108	37
Estimated backyard composting: tonnes	150	158	170	182	7
Households provided compost bins	900	1,000	1,050	1,110	6
Central composting: tonnes (mostly leaf & yard waste)	149	210	280	290	4
Households with curb and/or depot collection of organics	3,070	3,323	3,560	3,746	5
Household Hazardous Waste: tonnes	n/a	n/a	6	6	0
Population with Household Hazardous Waste access	n/a	n/a	9,800	9,990	1

¹(a) Statistics Canada, "1994 Waste Management Industry Survey: Business Sector", December 1996;
 (b) Ministry of the Environment, "1994 Summary Of Waste Disposal In Ontario", October 1996



Recycling Council
of Ontario



The Composting Council of Canada
Le Conseil canadien du compostage

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RESIDENTIAL RECYCLING IN ONTARIO

Figure 1 shows that from 1997 to 1998 there was a 9 per cent increase in the amount of recyclable materials recovered through municipal curbside and depot recycling programs. This increase is primarily attributed to the increase capture of paper, as well as normal population growth, and an increase in kilograms recovered per household.

Figure 2 shows there was a 3 per cent increase in the number of households served. Municipalities which provide recycling services comprise 99 per cent of the households in the province (up from 98% in 1997).

Figure 3 shows that the average household recycled 168 kilograms in 1998, up 6 per cent from the 159 kilograms reported for 1997. Quantities recovered per household increased for paper, plastic and metal, while decreasing slightly for glass.

Figure 4 shows the quantities of paper, glass, metal and plastic recovered as a per cent of total recovery.

Table 1: Distribution of Materials Recycled

Material	Tonnes (000's)			% change	Kilograms per HHLD			% change
	1996	1997	1998		1996	1997	1998	
Paper	367	429	476	11	105	115	124	8
Glass	104	102	100	(2)	30	27	26	(4)
Plastic	16	20	23	15	4.5	5.4	6	11
Metal (subtotal):	45	44	48.6	10	13	11.8	12.6	7
Aluminum Cans & Foil	10.5	11.0	13.1	19	3	2.9	3.4	17
Ferrous Containers	34.7	33.0	35.5	8	10	8.8	9.2	5
TOTAL	532	595	648	9	153	159	168	6
Households Served (000's)	3,484	3,730	3,850	3				

(apparent discrepancies are due to rounding)

Figure 1

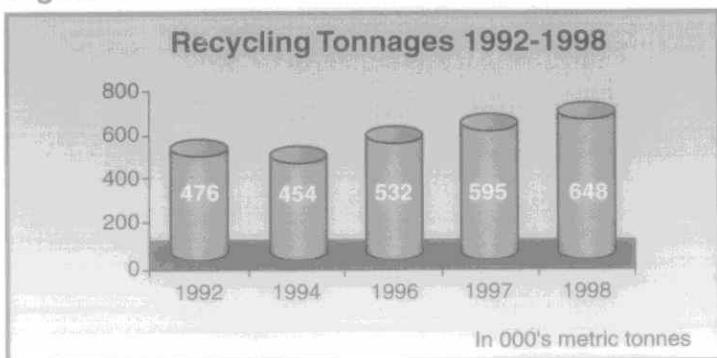


Figure 2

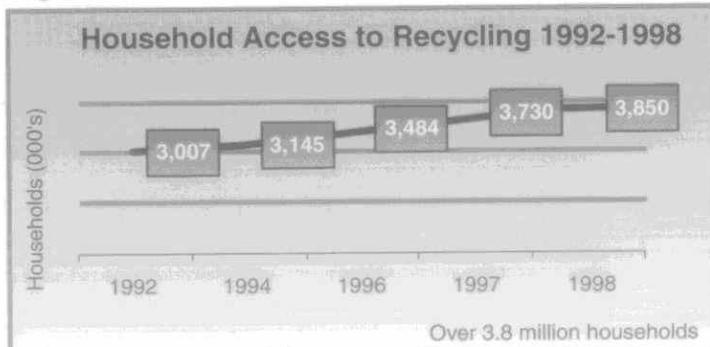


Figure 3

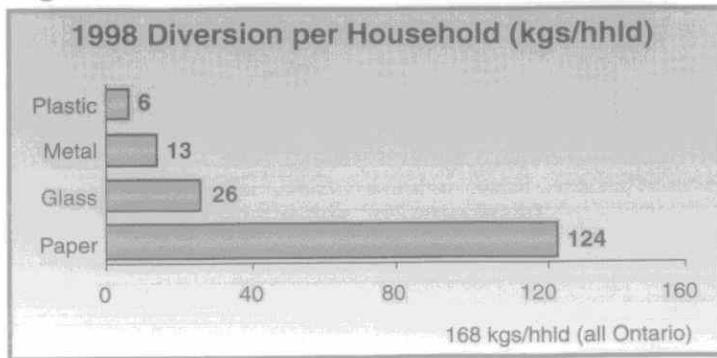
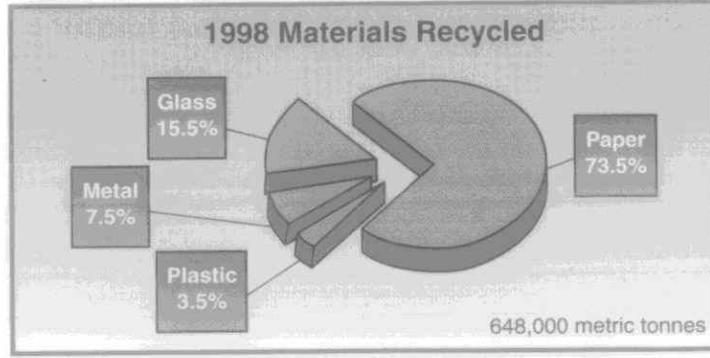


Figure 4



HOUSEHOLD HAZARDOUS WASTE DIVERTED FROM LANDFILLS & SEWERS

In 1998, 58 household hazardous waste (HHW) programs provided HHW management and disposal services to approximately 9.9 million people in about 275 municipalities. A total of 51 depots and 167 event days were operated in Ontario in 1998. This shows an increase from the 48 depots and 152 event days operated in 1997, and a decrease from the 61 HHW programs operated in 1996. The decrease in programs reflects the amalgamation of municipalities and shifting of waste management responsibilities from lower tier to upper tier levels of government in some areas. Smaller municipalities found event days more feasible to operate than permanent depots. Some municipalities indicated that they had increased the number of events but decreased the number of hours that each event was open. In this way, events are more accessible to the citizens they target.

Table 2: Overview of Ontario HHW Programs

Category	1996	1997	1998
Programs	61	54	58
Depots	n/a	48	51
Events	n/a	152	167
People Served (millions)	n/a	9.8	9.9
Municipalities Served	n/a	almost 300	280

Table 3: Types of HHW Programs Offered in 1998 in Ontario

Type of Program	Total	No. of Programs	Depots per program	Total Depots	Event Days per Program	Total Event Days
Depot Only	22	18	1	18		
		4	2 to 7	14		
Event Days Only	27	19			1	19
		8			2 to 8	33
Combination— Depots & Event Days	9	5	1 to 3	8	1 to 6	16
		2	1 to 2	3	13 to 16	29
		1	1	1	40	40
		1	7	7	30	30
Total	58	58		51		167

CENTRAL COMPOSTING ACTIVITY

As shown in Table 4, centralized composting programs as managed by Ontario municipalities diverted 290,000 tonnes of organic materials from landfill in 1998, a 4 per cent increase versus the previous year. Over 88 per cent of Ontario's households have access to residential organic collection programs, a 5 per cent increase versus 1997. Collection methods include curbside, depot and drop-off. The majority of the programs are focused on leaf & yard waste materials.

Table 4: Changes in Composting Activity

Year	1994	1996	1997	1998*	% Change
No. of programs	30	32	67	74	10
No. of municipalities	152	150	241	235	(2)
Households w/access to service (000's)	3,070	3,323	3,560	3,746	5
Tonnes processed (000's)	149	219	280	290	4

* There are 19 small programs which did not report tonnes. These programs represent 98,000 households with access to central composting. 3,200 tonnes have been estimated for these programs and included in the total of 290,000 tonnes.

BACKYARD COMPOSTING ACTIVITY

To date, more than 1.1 million backyard composters have been distributed in Ontario. These would serve about one third of the approximately three million single family dwellings in Ontario. While the number of households in the province grew by only 3 per cent from 1997 to 1998, households with backyard composters increased by 6 per cent. The number of municipalities providing composters has dropped by 2 per cent, primarily due to municipal amalgamations (see also Table 6). Table 5 indicates that many of the backyard composting programs that achieved better than 50 per cent participation rates in 1997 have since been amalgamated with programs having lower participation rates.

Table 5: Backyard Composting Participation and Results

Year	1994	1996	1997	1998	% change
No. of municipalities providing units	449	481	427	419	(2)
Per cent of provincial population in these municipalities	96%	98%	97%	98%	1
Households provided with compost bins (000's)	900	1,000	1,050	1,110	6
Approximate tonnes diverted (000's)	150	155	170	182	7

MUNICIPAL RECYCLING INFRASTRUCTURE

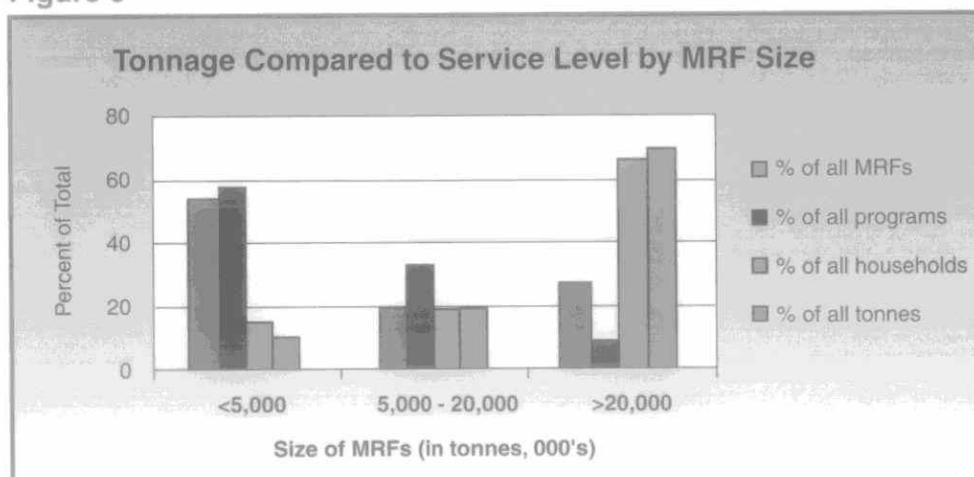
Figure 5 categorizes *material recovery facilities* (MRFs) by the annual municipal tonnage handled. Most of these facilities sort and bale recyclable materials and ship them to markets. Some of the small sites sort, but do not bale. Some sites handle material from IC&I sources exclusively and these sites are excluded from this analysis.

- 59 sites in Ontario received recyclables from municipal collectors in 1998, up from 58 in 1997. No significant quantities are shipped to MRFs outside Ontario.
- 54 per cent (53% in 1997) of the MRFs each handled less than 5,000 tonnes per year and served 15 per cent of households (16% in 1997).
- 19 per cent (22% in 1997) each handling 5,000 to 20,000 tonnes per year served 19 per cent of households (21% in 1996).
- 27 per cent (24% in 1997) each handling more than 20,000 tonnes per year served 66 per cent of Ontario's households (64% in 1997).
- Private sector companies own and operate 61 per cent of all MRFs in Ontario. They also operate on a contract basis an additional 25 per cent on behalf of municipal owners. Municipalities operate 14 per cent of all MRFs.

Shifting Roles for Municipal Infrastructure

Municipal recycling of privately collected materials from industrial, commercial, and institutional (IC&I) sources increased 24 per cent. "Other recyclables", a category including residential renovation wastes (C&D) and whitegoods, increased 37 per cent. Together these categories represented only 10 per cent of the 3Rs stream in 1998 (8% in 1997). The reasons for these increases are not explained by the survey. Future study will determine whether these materials are being diverted by private and non-profit infrastructure rather than municipal.

Figure 5



(Apparent discrepancies are due to rounding)

Municipal amalgamations which were arranged during 1997 and 1998 and largely took effect in January of 1999 make it unclear as to how many programs operated in 1998 and how many municipalities took part in them. The columns for the year 1996 in Table 6 show the situation at the end of 1996. The columns for 1997 and 1998 show the situation in the Spring of 1998 and the Spring of 1999 when the surveys were being responded to. This is the best available representation of the situation at the end of 1998. Smaller municipalities have consolidated into larger ones. The number of programs serving fewer than 100,000 people increased 17 per cent, while the number of larger programs increased by one program. This does not yet reflect the full extent of consolidations because revised program administrations had not all been established by the time of this survey.

Table 6: Municipal Recycling Programs by Population Served

Population Groups	0-50,000			50,000 to 100,000			100,000 to 250,000			Over 250,000 Total			Totals		
	1996	1997	1998	1996	1997	1998	1996	1997	1998	1996	1997	1998	1996	1997	1998
No. of programs	180	153	182	15	13	13	8	9	10	11	10	10	214	185	215
No. of municipalities	359	287	277	111	72	64	82	84	84	60	71	63	612	514	488
No. of these households with practical access to service (000's)													3,484	3,730	3,850

DATA COLLECTION METHODOLOGY

This report is the product of a partnership of five organizations: the Ministry of the Environment's Waste Management Policy Branch (MOE), CSR: Corporations Supporting Recycling (CSR), Recycling Council of Ontario (RCO), the Association of Municipal Recycling Coordinators (AMRC) and the Composting Council of Canada (CCC). The partners generated and distributed a survey, validated the returned data, developed estimates covering the municipalities that did not report quantities, and produced the fact sheet. The partnership approach relieves municipal waste management professionals from responding to four or five similar annual surveys, and avoids publication of contradictory reports. This is the second update of the partnership's original fact sheet published in October 1997 regarding 1994 and 1996 activities. This fact sheet covers the same time period as last year's fact sheet, plus 1998.

The Municipal 3Rs Survey form was used to collect information from 224 known municipal 3Rs programs serving 488 municipalities across Ontario, many of which have fewer than 5,000 people. Survey responses were received from 123 programs, 101 of which reported recycling tonnages collected from about 94 per cent of Ontario's population (86% last year). Tonnages have been estimated for the non-responding programs, either by using figures provided in a previous year (covering about 2% of population), or by making an estimate based on the performance of similar programs (covering 2% of population). About 1 per cent of the population lives in remote areas not known to be served by 3Rs programs.

The survey responses have been checked for inconsistencies with respect to topics covered in this fact sheet. Checking will continue as analyses proceed. Respondents are contacted for clarification when inconsistencies appear. Most of the data summarized in this fact sheet have been entered into electronic databases which are available through RCO's 3RSource On-Line web pages (www.rco.on.ca/3rsource/main.htm).

The partners wish to thank all municipal staff who participated in the survey and whose contributions are the key ingredients in this

fact sheet; i.e., the facts themselves. The partners look forward to continuing to share summarized information and analyses, and to expanding it through follow-up and subsequent surveys.

INFORMATION SOURCES:

- 1998: 3Rs Information Partnership 1999 data survey, and AMRC's survey of HHW programs
- 1997: 3Rs Information Partnership 1998 data survey, and AMRC's more detailed survey of HHW programs
- 1996: 3Rs Information Partnership 1997 data survey
- 1994: MOE Highlights - 1994 Waste Diversion by Ontario Municipalities
- 1992: OMMRI Overview of 1992 published in April 1993
- Populations: Statistics Canada, Catalogue no. 91-213, Annual Demographic Statistics, 1998, p. 20
- Households: Ontario Municipal Directory (electronic version); Association of Municipal Clerks & Treasurers *
- (* adjusted by removing seasonally occupied cottages and chalets; consequently 'households' indicates the approximate number of waste generating families in the province, rather than the number of dwelling places)

ACKNOWLEDGMENTS:

This report would not have been possible without the special contributions of the following people: Bruce Pope (Chair of working group), Karen Gventer, Joe Hruska, Cheryl Lafond, Barbara McConnell, Geoff Rathbone, and Beverly Stone.

DISCLAIMER:

The information contained in this report is derived from data submitted by survey respondents. The partners cannot and do not make any representation as to the accuracy of the data provided by survey respondents.

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